

This is revision of petition for exemption docket number FAA-2020-0770

14 CFR 11.81 (a)

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14 CFR 11.81(b)

I seek relief 14CFR 133.43 (a) and (b) in regard to equipment used for class B HEC (human external cargo) operations applicable to PCDS system required by STC (SR02693LA)

I seek relief from 14CFR 91.9(a) (Only applicable to Onboard Systems cargo hooks kits STC (SR02693LA) Flight Manual Supplement

14 CFR 11.81(c)

Haverfield International requests the maximum relief allowed by law.

Reason for relief from 14CFR 133.43 (a) and (b) and 14CFR 91.9(a)

Haverfield International operates 23 MD500 rotorcraft under 14 CFR 133.35 and carry's flight crewmembers necessary to accomplish the work activity directly associated with that operation. These operations fall under class B external loads spelled out in AC 133-1B. The primary purpose of the Class B operations is to maintain and repair the United States electrical grid. The FAA has pointed out in SAFO#18004 that external load attaching means and quick release devices in the 133 operating rules, 133.43 (a) and (b) must meet the HEC requirements of 27.865.

The main focus of SAFO 18004 was the external load attaching means (e.g., cargo hooks). To meet this new rule, Onboard Systems developed an FAA approved dual hook system that meets the HEC requirements of 27.865, STC No. SR02693LA. However, the part 27 certification rules dictate that the STC must have an approved Personal Carrying Device Systems (PCDS). The (PCDS) consists of long lines and harnesses. The Onboard systems STC does have an available long line and a specification (TSO C167) for harnesses, However, they don't meet the current electrical industry standards. The current 27.865 standards for ropes and harnesses were not intended for the power line industry, therefore, using them they can create additional safety

concerns when used while working on the electrical grid (e.g., electrical conduction, heat, flashpoints, and abrasion).

Onboard Systems is aware that these lines and harnesses do not meet current electrical industry standards. For this reason, Onboard Systems created a provision in their limitations page of the STC's FMS to include an option for approval by the Local Aviation Authority. There was some discussion by the FAA to include this guidance in AC 133-1B, However, currently, no such FAA guidance has been written for local FIDSO approval.

Haverfield International would like an exemption for 91.9(a) and 133.43 (a) and (b) for the specific items of Onboard Systems Rotorcraft Flight Manual Supplement (RCFMS) (STC SRO269LA) and will comply with alternate means.

Page 7 Section 2 Limitations, paragraph 4 (PCDS Long lines)

Haverfield would like to use the following longlines for abrasion resistance and for electrical considerations:

- Steel 3/8" anti-rotational cable (meets ASME B30.12).
- LCP with woven Kevlar® cover (meets ASME B30.12).
- LCP with Vectran® cover (meets ASME B30.12)
- Dyneema that meets or exceeds the dry or wet electrical requirements of IEC62192:2009 and ASTM F1701-12

Page 7 Section 2 Limitations, Paragraph 3 (PCDS harness TSO-C167)

Haverfield would like to use the following Harnesses for abrasion resistance and for electrical considerations.

- ANSI Z359.11, CZA 2259.10 and OSHA 1926.

14.CFR 11.81(d)

1. Haverfield International conducts many specialized operations that help restore power or prevent power outages, especially in remote hard to access areas. Access by helicopter is especially critical after storms or hurricanes. Much of this electrical grid is inaccessible by ground or other traditional methods. The use of human external cargo is critical to access and repair the electrical grid.

14.CFR 11.81 (e)

2. In addition to the specific lines and harnesses listed above in 11.81 (c) these following standards will also be met.
3. (PCDS) short-haul ropes and all other attaching means will meet or exceed HEC requirements of the Onboard Systems STC. This will include a design load of 800 lbs., limit load (3.5 times design load) of 2,800lbs and ultimate load (1.5 of limit load) 4,200 lbs. Individual Harnesses and lanyards will meet or exceed the same limit and ultimate load ratings for their working loads.
4. Haverfield follows all limitations and ICA's for (PCDS) short-haul ropes and crewmember harnesses
5. Haverfield trains all pilots and crewmembers before performing HEC operations. IAW AC133-1B.

14 CFR 11.81(F)

1. Exemption from the operating rules of 133.43 (a) and (b) and 91.9(a)
2. for class B Human External cargo.

14 CFR 11.81(g)

For many years, and tens of thousands of flight hours, Haverfield and other operators have been performing class B human external loads with lines and harnesses listed in 11.81(c), showing a proven level of safety.

14 CFR 11.81 (H)

Haverfield International, does not wish to exercise the privileges of this exemption outside the United States.